CONTENTS

VOLUME 18, ISSUE NOS. 1–4

Issue No. 1, January–March

Middle Carboniferous marine transgression, Bjørnøya, Svalbard: facies sequences from an interplay of sea level changes and tectonics: J. Gjelberg and R. Steel 1

The Monian 'Penmynydd Zone of Metamorphism' in Llŷn, North Wales: W. Gibbons 21

Metasomatism and the formation of greisen in Grainsgill, Cumbria, England: D. E. Roberts 43

Petrology of nepheline syenite gneiss from Amazonian Brazil: G. R. Lowell and R. Netuno Villas 53

Intrusive relationships between young and old Archaean gneisses: evidence from Ivisârtoq, southern West Greenland: R. P. Hall and C. R. L. Friend 77

Brachiopods from a Lower Palaeozoic mass flow deposit near Llanafan Fawr, Central Wales: M. G. Lockley 93

BOOK REVIEWS 101

Issue No. 2, April–June

The Skipton Rock Fault—an Hercynian wrench fault associated with the Skipton Anticline, northwest England: R. S. Arthurton 105

A new section around the Amaliae (Tonge's) Marine Band near Manchester, England: J. I. Chisholm 115

On the occurrence of an unusual form of monazite in panned stream sediments in Wales: D. C. Cooper, I. R. Basham and T. K. Smith 121

Indexed or abstracted by 'Current Contents'; 'Science Citation Index' and other leading Indexing/Abstracting Services

The distribution of hydrocarbon minerals in the Welsh borderlands and adjacent areas: J. Parnell 129

Low-grade metamorphism within the Welsh sector of the paratectonic Caledonides: R. E. Bevins and G. Rowbotham 141

Structure of the Ordovician succession around Aberdaron, southwest Llŷn, North Wales: T. R. W. Hawkins 169

BOOK REVIEWS 183

Issue No. 3. July–September

The papers forming this issue of the *Geological Journal* are contributions presented at the I.G.C.P.—Caledonian Orogen Project Symposium held in Uppsala in August 1981. The five papers are concerned with tectonic themes in the Appalachians of North America, and have been assembled together to provide a more coherent picture of Appalachian geology.

The Avalon Zone: A Pan-African terrane in the Appalachian Orogen of Canada: S. J. O'Brien, R. J. Wardle and A. F. King 195

Repeated basement reactivation in the northeastern Appalachians: K. L. Currie 223

Palinspastic reconstruction of the Grenville terrane in the Blue Ridge Geologic Province, southern and central Appalachians, U.S.A.: M. J. Bartholomew 241

Basement massifs in the Appalachians: their role in deformation during the Appalachian Orogenies: R. D. Hatcher, Jr. 255

Basement-cover relations in the Appalachian fold and thrust belt: W. A. Thomas 267

BOOK REVIEWS 277

Issue No. 4, October–December

Observations and speculations on the northeast Towy 'axis' mid-Wales: D. M. D. James 283

Note on the age and fauna of the Lynton Beds (Lower Devonian) of north Devon: K. M. Evans 297

A Pleistocene succession from beneath Chelford Sands at Oakwood Quarry, Chelford, Cheshire: P. Worsley, G. R. Coope, T. R. Good, D. T. Holyoak and J. E. Robinson 307

Geophysical down-hole recognition of the Lower Devonian *'Psammosteus'* Limestone and Townsend Tuff Bed, South Wales: I. P. Tunbridge 325

Historical valley alluviation in mid-Wales: J. Lewin, S. B. Bradley and M. G. Macklin 331

Tectonic relationships of the Leinster Granite, Ireland: M. A. Cooper and P. M. Brück 351

BOOK REVIEWS 361

AUTHOR INDEX 367

KEY WORD INDEX 368